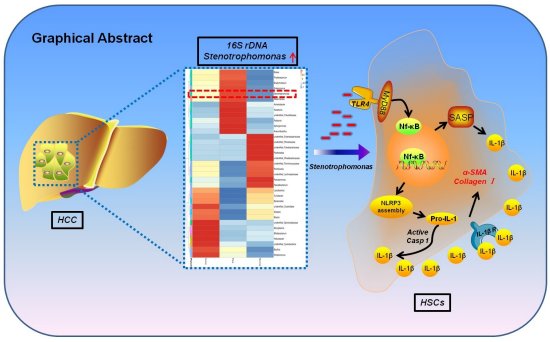
Hepatic stellate cell activation and senescence induced by intrahepatic microbiota disturbances drive progression of liver cirrhosis towards Hepatocellular Carcinoma



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In Brief

S. maltophilia activates NF-κB via TLR4, which then promotes NLRP3 complex formation, resulted in caspase-1 activation, IL-1β secretion, and inflammatory responses, to activate hepatic stellate cells (HSCs). Moreover, *S. maltophilia* can cause HSCs to acquire a senescence-associated secretory phenotype (SASP), which directly leads to inflammation and HCC progression.